CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	**Hwy 200 gabion wall repair on the Blackfoot River**
Proposed Implementation Date:	**February 2012**
Proponent:	**Montana Department of Transportation**
Location:	**Section 14 T13N R18W, Blackfoot River**
County:	**Missoula County**

I. TYPE AND PURPOSE OF ACTION

To prevent further damage and potential collapse of a portion of Montana Highway 200, MDOT is requesting to repair/replace approximately 200 feet of existing gabion retaining wall along Highway 200, east of Bonner. During high runoff of the Blackfoot River during 2011, up to 10 feet of vertical foundation soil material has been exposed below the bottom basket. With the toe material removed, overall stability of the wall at this site is a concern. Work would include placement of special backfill and/or concrete, geotextile and riprap.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

The Missoula Unit Manager and the Missoula County Floodplain Office were contacted once the state was notified of the impending license application for work within the low water mark.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

A Missoula County floodplain permit, an SP124, an Army Corp of Engineers 404 permit, and a 318 permit from Montana DEQ, would be required to undertake this project.

3. ALTERNATIVES CONSIDERED:

The Blackfoot River is a navigable waterway, the bed of which is owned by the State of Montana. Although permits are not required along this unajudicated waterway,an MOU between MDOT and the DNRC is still in place which requires permitting from DNRC's Trust Land Management Division (TLMD). The DNRC TLMD's authority, when exercised, extends below the low water marks.

No Action Alternative

The gabion wall would not be repaired. While not in danger of imminent failure, cracking in the gabions and the existing outward rotation of the top of the wall would likely continue over time, destabilizing Hwy 200.

Action Alternative

The gabion wall would be repaired by placing additional riprap at a 2:1 slope so that it extends above the lowest exposed base by 2 to 3 feet. A combination of geotextile filter and cement would be used to prevent erosion of currently exposed vertical soil faces. 600 feet of mechanized entry along the riverbed would be required.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

The Department of Environmental Quality is the responsible agency for permitting and developing appropriate mitigations for all turbidity producing activities.

No Action Alternative may result in collapse of all or a portion of Highway 200 over time, disrupting traffic patterns and creating public health and safety issues such as potential flooding and disruption to emergency services such as police, fire, ambulance along accessibility to hospital and health care services in the City of Missoula.

Action Alternative would require heavy equipment entry along approximately 600 feet of riverbed for a period of approximately 2 to 3 weeks. Mechanized entry into the river would cause short-term impacts to the bed of the river, temporarily impacting water quality and fisheries along the Blackfoot.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

The Department of Environmental Quality is the responsible agency for permitting and developing appropriate mitigations for all turbidity producing activities.

No Action Alternative may result in collapse or all or a portion of Highway 200 over time. This may create flooding, channel destabilization and increased long term sedimentation of the Blackfoot downstream of the failure.

Action Alternative would temporarily increase turbidity for the short term as mechanized equipment is used to access the gabion wall site and rip rap is toed into the bed of the river to prevent undercutting of the wall.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

Under either alternative, no significant or extraordinary air pollutants would be introduced.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

The DNRC TLMD's authority lies within the navigable portions of the Blackfoot River, between low water marks. Under either alternative, there would be no impact to vegetation cover, quantity or quality on DNRC ownership.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

Both the Department of Environmental Quality and the Montana Department of Fish Wildlife and Parks are the responsible permitting authorities related to sedimentation and its effects on avian and aquatic life and habitats.

No Action Alternative may result in collapse of all or a portion of Highway 200 over time. This could create flooding, channel destabilization and increased long term sedimentation of the Blackfoot River downstream of the failure.

Action Alternative would temporarily increase turbidity for the short term as mechanized equipment is used to access the gabion wall site and rip rap is toed into the bed of the river to prevent undercutting of the wall.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

Both the Department of Environmental Quality and Montana Department of Fish Wildlife and Parks are the responsible permitting authorities related to sedimentation and its effects on avian and aquatic life and habitats.

The Blackfoot River is identified habitat for Bull Trout (Salvelinus confluentus) which is listed as a threatened species by the USFWS and a Species of Concern with MTFWP. It is also habitat for Westslope Cutthroat Trout (oncorhynchus clarkia lewisi) which is listed as a Species of Concern with MTFWP. Both species of trout spawn on clean gravel riverbottoms. Cutthroat typically spawn in March and April, while Bull Trout spawn in the fall. Habitats for both of these fish have been disturbed and disrupted along this stretch of the Blackfoot due to recent removal of the Milltown Dam which has resulted in altered river flows in this stretch. Logging activity along the streambed has also had some short term temporary impact to fisheries habitat.

Neither alternative would result in cumulative impacts to fisheries.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

The DNRC TLMD's authority lies within the navigable portions of the Blackfoot River, between low water marks. As such, there should be no effects to historical, archaeological or paleontological resources.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

The DNRC TLMD's authority lies within the navigable portions of the Blackfoot River, between the low water marks. The proposed project area is located approximately 2 miles east of and outside the unincorporated town of Bonner. Equipment entry would be visible from Highway 200. There would be no cumulative effects to aesthetics.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

No Action Alternative would not place any demands on environmental resources of land, water, air or energy.

Action Alternative would not place any demands on environmental resources of land, water, air or energy.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

There are no known environmental documents pertaining to this area.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

The DNRC TLMD's authority lies within the navigable portions of the Blackfoot River, between the low water marks. The Department of Environmental Quality is the permitting agency authorized to address human health and safety issues regarding water quality.

No Action Alternative may result in long term effects to water quality and create possible flooding risk in the area should the gabion retaining wall collapse.

Action Alternative short term temporary effects to water quality would occur, and DEQ would identify acceptable mitigative measures to address the same.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

Repair of this gabion wall is an industrial activity, which is to be expected of public infrastructure projects. As such, replacement or repair is part of ordinary activities for maintance and inspection.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

Repair of this gabion wall is an industrial activity, and can be expected of public infrastructure projects. As such, replacement or repair is part of ordinary activities that create ordinary employment opportunities.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

There would be no known impacts to local and state tax base and tax revenues as a result of this proposal.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

No Action Alternative may result in extraordinary impacts to demands for government services should the gabion retaining wall collapse all or part of Highway 200. Traffic would be rerouted, and police, fire, ambulance service and schools would be impacted significantly.

Action Alternative is not expected to result in any changes to traffic patterns. Fire, police, ambulance and school services would not be impacted. It is possible very short term impacts could occur to traffic patterns as large equipment is moved into staging areas adjacent to the river.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

This area is covered under the Missoula County Comprehensive Plan. This project is not affected by that plan.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

No Action Alternative may cause long term impacts to recreational activities within the Blackfoot River if the gabion wall were to collapse.

Action Alternative may cause short term impacts to recreational opportunities on the Blackfoot River. This project is being undertaken in the spring, prior to high water flows. As such, recreational use of the river is minimal during this time. Fishing downstream would be temporarily impacted by increased turbidity and sedimentation within the waterway.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

NONE

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

NONE

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

NONE

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

An LUL fee would be collected for this proposal, along with a subsequent easement payment. These fees would be placed into the Public Lands trust for appropriation by the state.

EA Checklist Prepared By:	**Name: Dana Boruch**	**Date: February 28, 2012**
	Title: Right-of-Way Specialist	

V. FINDING

25. ALTERNATIVE SELECTED:

Action Alternative

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

Potential impacts are minimal and can be acceptably mitigated.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

	EIS		More Detailed EA	X	No Further Analysis

EA Checklist Approved By:	**Name: Jonathan Hansen**	
	Title: Missoula Unit Manager	
Signature: /s/ Jonathan Hansen		**Date**: 3-1-2012